

CLAIMS

What is claimed is:

1. A method in a data processing system for processing a document
5 containing an embedded object having a first format corresponding to a first program,
the method comprising the steps of:

determining whether the first program is an unavailable program; and

when it is determined that the first program is an unavailable program,
converting the embedded object into a second format different from the first format
10 that is suitable for use with a second program that is available on the data processing
system.

2. The method of claim 1, further comprising the step of:
receiving an indication of the second format from a user.

3. The method of claim 2, wherein the data processing system contains a
plurality of programs, each with an associated format, and wherein the method
further comprises the steps of:

determining which of the plurality of programs are available on the data
20 processing system; and

displaying the associated formats of the available programs to the user.

4. The method of claim 1, further comprising the steps of:
receiving an indication of a third format from a user;
25 converting the embedded object into the third format; and
storing the embedded object.

5. The method of claim 1, wherein the converting step includes
automatically identifying the second format.

6. The method of claim 1, further comprising the step of:
converting the embedded object into an intermediate format prior to converting
30 the embedded object into the second format.

7. A method in a data processing system for processing a document containing an embedded object having a first format corresponding to a first program, the method comprising the steps of:

determining whether the first program is an unavailable program;

5 when it is determined that the first program is an unavailable program, converting the embedded object into a second format different from the first format that is suitable for use with a second program that is available on the data processing system;

receiving an indication of a third format from a user;

10 converting the embedded object into the third format; and storing the embedded object in the third format.

8. A method in a data processing system containing a plurality of programs, each with an associated format, the data processing system for processing a document containing an embedded object having an originating format corresponding to an originating program, the method comprising the steps of:

determining whether the originating program is unavailable;

when it is determined that the originating program is unavailable,

15 determining which of the plurality of programs are available on the data processing system,

20 displaying the associated formats of the available programs to a user, and

receiving an indication of a selected one of the displayed formats from the user; and

25 converting the embedded object into the selected format.

9. A method in a data processing system for processing a document containing an embedded object having a first format corresponding to a first program, the data processing system having a memory, the method comprising the steps of:

initiating loading of the document into the memory;

5 while the document is being loaded,

determining whether the first program is unavailable,

when it is determined that the first program is unavailable,

converting the embedded object into a second format different from the first format that is suitable for use with a second program that is available on the data processing system;

10 after the document is loaded, receiving a request from the user to edit the embedded object; and

responsive to receiving the request from the user, converting the embedded object into a third format that is suitable for use with a third program that is available on the data processing system.

10. A data processing system comprising:

a secondary storage device comprising a target document containing an embedded object having a first format corresponding to a first program;

20 a memory comprising a computer program that determines whether the first program is an unavailable program, and, when it is determined that the first program is an unavailable program, converts the embedded object into a second format different from the first format that is suitable for use with a second program that is available on the data processing system; and

25 a processing unit that runs the computer program.

11. A computer-readable medium containing instructions that cause a data processing system to perform a method for processing a document containing an embedded object having a first format corresponding to a first program, the method comprising the steps of:

5 determining whether the first program is an unavailable program; and
when it is determined that the first program is an unavailable program, converting the embedded object into a second format different from the first format that is suitable for use with a second program that is available on the data processing system.

10 12. The computer-readable medium of claim 11, further comprising the step of:

receiving an indication of the second format from a user.

13. The computer-readable medium of claim 12, wherein the data processing system contains a plurality of programs, each with an associated format, and wherein the method further comprises the steps of:

determining which of the plurality of programs are available on the data processing system; and

20 displaying the associated formats of the available programs to the user.

14. The computer-readable medium of claim 11, further comprising the steps of:

receiving an indication of a third format from a user;

25 converting the embedded object into the third format; and

storing the embedded object.

15. The computer-readable medium of claim 11, wherein the converting step includes automatically identifying the second format.

30 16. The computer-readable medium of claim 11, further comprising the step of:

converting the embedded object into an intermediate format prior to converting the embedded object into the second format.

17. A computer-readable medium containing instructions that cause a data processing system to perform a method for processing a document containing an embedded object having a first format corresponding to a first program, the method comprising the steps of:

- 5 determining whether the first program is an unavailable program;
 when it is determined that the first program is an unavailable program,
converting the embedded object into a second format different from the first format
that is suitable for use with a second program that is available on the data processing
system;
- 10 receiving an indication of a third format from a user;
 converting the embedded object into the third format; and
 storing the embedded object in the third format.

18. A computer-readable medium containing instructions that cause a data
5 processing system containing a plurality of programs, each with an associated
format, to perform a method for processing a document containing an embedded
object having an originating format corresponding to an originating program, the
method comprising the steps of:

- determining whether the originating program is unavailable;
- 20 when it is determined that the originating program is unavailable,
 determining which of the plurality of programs are available on the data
processing system,
 displaying the associated formats of the available programs to a user,
and
- 25 receiving an indication of a selected one of the displayed formats from
the user; and
 converting the embedded object into the selected format.

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19. A computer-readable medium containing instructions that cause a data processing system to perform a method for processing a document containing an embedded object having a first format corresponding to a first program, the data processing system having a memory, the method comprising the steps of:

5 initiating loading of the document into the memory;
while the document is being loaded,
determining whether the first program is unavailable,
when it is determined that the first program is unavailable,
converting the embedded object into a second format different from the first
10 format that is suitable for use with a second program that is available on the data processing system;
after the document is loaded, receiving a request from the user to edit the embedded object; and
responsive to receiving the request from the user, converting the embedded
15 object into a third format that is suitable for use with a third program that is available on the data processing system.

20. A computer-readable memory device encoded with a data structure with entries, each entry reflecting embedded data in a document that is accessed by a host program which is encoded on the memory device and which is run by a processor in a system, each entry comprising:

25 a storage area in which is stored a first identifier of an original program that was utilized during creation of the embedded data and in which is stored a second identifier of an available program to be used for accessing the embedded data when the original program becomes unavailable in the system, wherein the available program is different than the original program.

21. The computer-readable memory device of claim 20, wherein the second identifier replaces the first identifier.

22. The computer-readable memory device of claim 20, wherein the original program becomes unavailable because the original program is not installed on the system.

23. The computer-readable memory device of claim 20, wherein each entry includes a second storage area in which is stored the embedded data in a format suitable for use with the original program and in which is stored the embedded data in a format suitable for use with the available program.

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24. The computer-readable memory device of claim 23, wherein the embedded data in the format suitable for use with the available program replaces the embedded data in the format suitable for use with the original program.

10 25. A data processing system for processing a document containing an embedded object having a first format corresponding to a first program, the data processing system comprising:

means for determining whether the first program is an unavailable program; and

15 means for converting the embedded object into a second format different from the first format that is suitable for use with a second program that is available on the data processing system, when it is determined that the first program is an unavailable program.

20 26. A method in a data processing system comprising a document with data in a native format and with embedded data in a nonnative format, the embedded data suitable for use with a program, the method comprising the steps of:

receiving an indication of a different format suitable for use with a different program; and

25 converting the embedded data into the different format.

27. The method of claim 26, wherein the receiving step includes the step of: receiving the indication from a user.

30 28. The method of claim 26, wherein the receiving step includes the step of: retrieving the indication from storage.

29. The method of claim 26, wherein the steps of the method are performed while the document is being loaded into memory.

30. The method of claim 26, wherein the steps of the method are performed while the document is being displayed to a user.

31. A computer-readable medium containing instructions that cause a data processing system to perform a method, the data processing system comprising a document with data in a native format and with embedded data in a nonnative format, the embedded data suitable for use with a program, the method comprising the steps of:

receiving an indication of a different format suitable for use with a different program; and

converting the embedded data into the different format.

32. The computer-readable medium of claim 31, wherein the receiving step includes the step of:

receiving the indication from a user.

33. The computer-readable medium of claim 31, wherein the receiving step includes the step of:

retrieving the indication from storage.

34. The computer-readable medium of claim 31, wherein the steps of the method are performed while the document is being loaded into memory.

35. The computer-readable medium of claim 31, wherein the steps of the method are performed while the document is being displayed to a user.